Kaleb
Kelly

Henke Med Math 3

1. $\frac{30\,mg}{500\,ml} = 0.06\,mg/ml \times 1000 = 60\,mcg/ml$

2. $\frac{30\,mg}{500\,ml} = 0.06\,mg/ml = 60\,mcg/ml \quad \frac{500\,ml}{30\,mg} \times \frac{100\,mcg}{1\,min} \times \frac{60\,min}{1\,h} \times \frac{1\,mg}{1000\,mcg} = 100\,ml/hour$

3. $\frac{4\,mg}{500\,ml} = 0.008\,mg/ml \times 1000 = 8\,mcg/ml$

4. $\frac{8\,mcg}{60} = 0.133\,mcg/min \quad \frac{500\,ml}{4\,mg} \times \frac{0.5\,mcg}{1\,min} \times \frac{60\,min}{1\,hr} \times \frac{1\,mg}{1000\,mcg} = 3.75 = 4\,ml/hr$

5. $12\,u \times 90\,kg = 1080\,u/hr$

6. $\frac{500\,ml}{25{,}000\,u} \times \frac{12\,u}{1\,kg/hr} \times \frac{90\,kg}{1} = 21.6 = 22\,ml/hr$

7. $\frac{10\,mg}{1\,ml} \times \frac{100\,ml}{1} = 1000\,mg$

8. $\frac{10{,}000\,mcg}{60} = 166.67\,mcg/min \quad \frac{100\,ml}{1000\,mg} \times \frac{5\,mcg}{kg/min} \times \frac{60\,min}{1\,hr} \times \frac{1\,mg}{1000\,mg} \times \frac{90\,kg}{1} = 2.7 = 3\,ml/hr$

$50\,mcg \times 90 = 4500\,mcg/min \quad \frac{100\,ml}{1000\,mg} \times \frac{50\,mcg}{kg/min} \times \frac{60\,min}{1\,hr} \times \frac{1\,mg}{1000\,mg} \times \frac{90\,kg}{1} = 27\,ml/hr$

1. Adjust med doses based on dialysis and renal failure

2. Different doses may work better based off client's reaction, used to raise B/P

3. For sedation while on the ventilator, also to put less stress on the heart

4. A calcium channel blocker, client is allergic

5. Possibly due to the effect of the vasopressors

6. To prevent side effects such as a dysrhythmia, nausea, or vomiting